

# Healthy South Dakota



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# BMI for Adults

- Healthy Weight--18.5-24.9
- Overweight-- 25.0 - 29.9
- Obese--30 and over
  - Obesity class 1--30-34.9
  - Obesity class 2--35-39.9
  - Extreme obesity (class 3)-- $\geq 40$

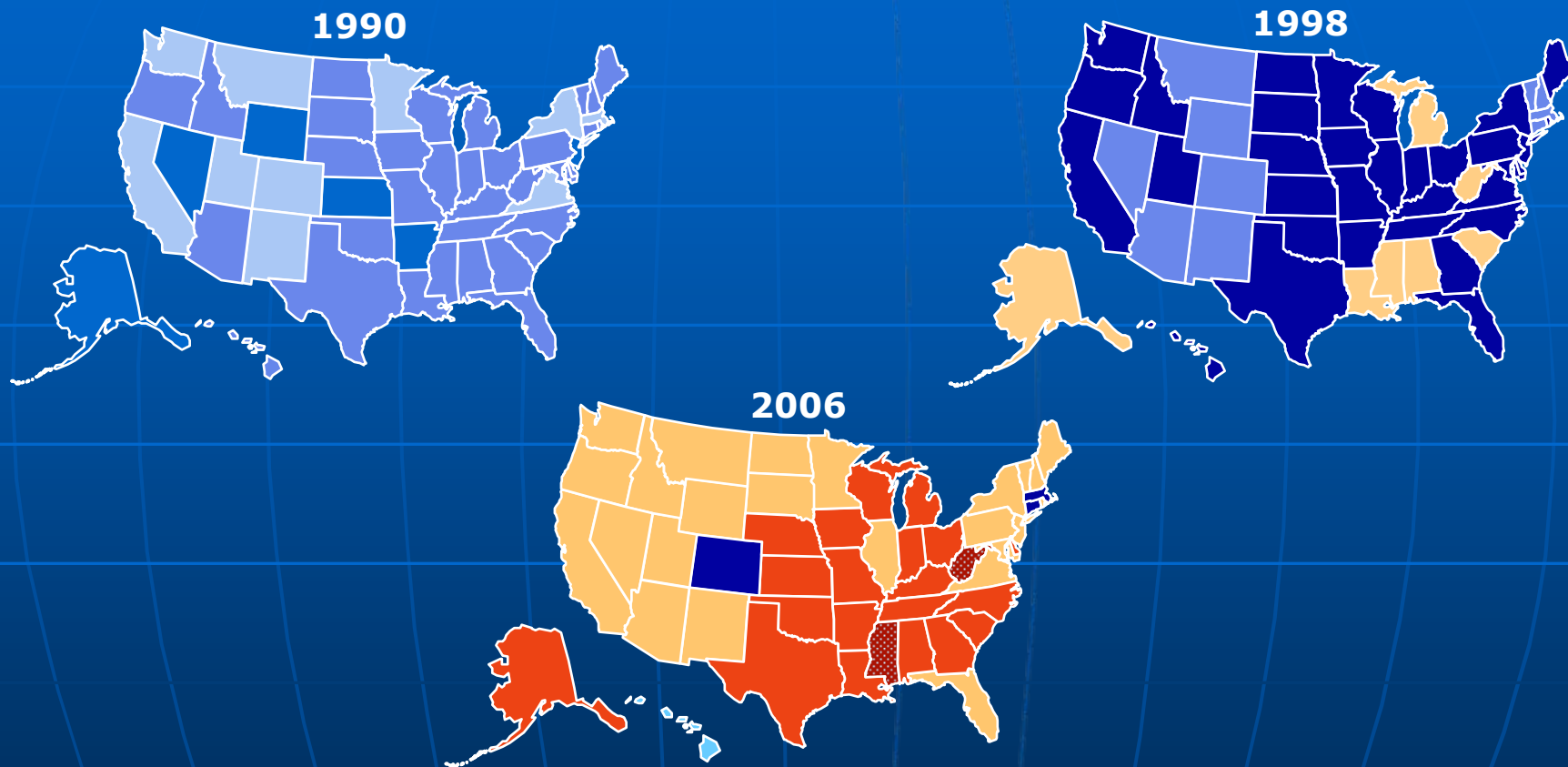
(BMI = Wgt in pounds divided by hgt in inches squared X 703)



# Obesity Trends\* Among U.S. Adults

## BRFSS, 1990, 1998, 2006

(\*BMI  $\geq 30$ , or about 30 lbs. overweight for 5'4" person)





(\*BMI  $\geq 30$ , or  $\sim 30$  lbs overweight for 5' 4" person)

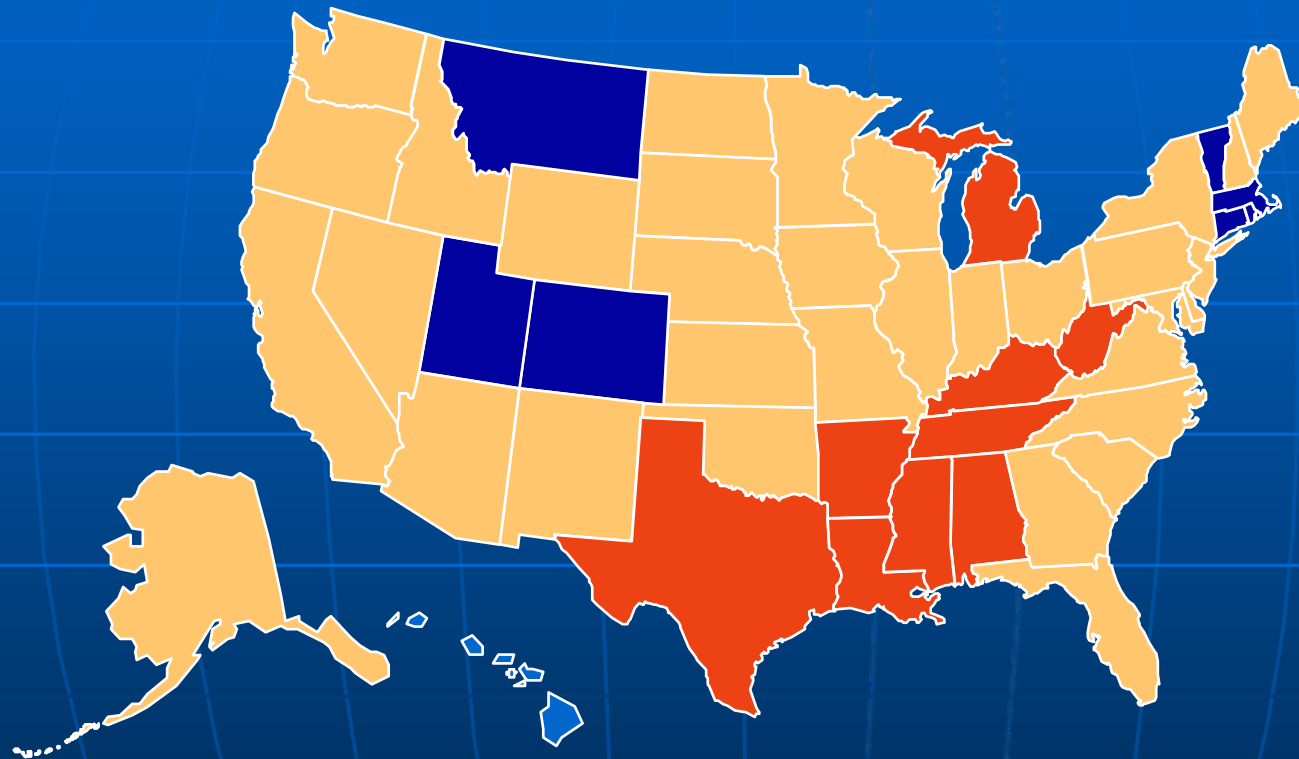




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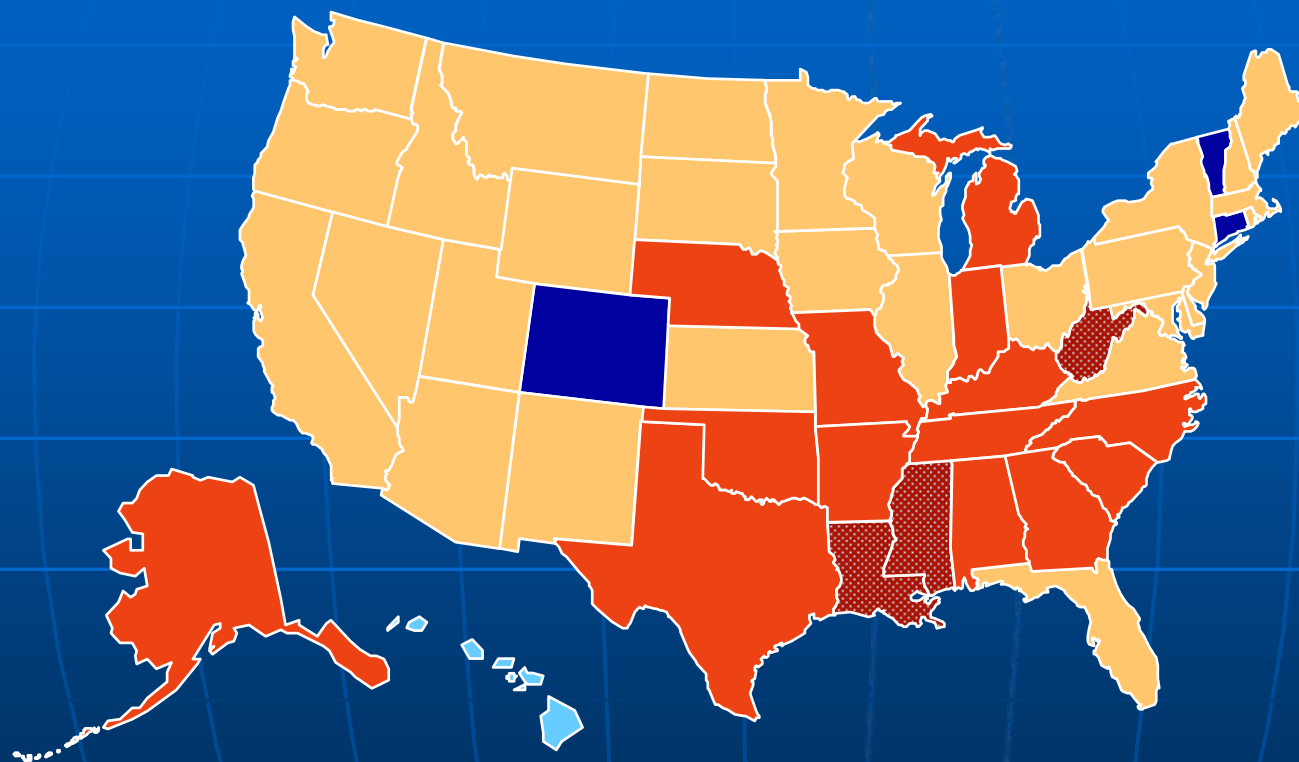




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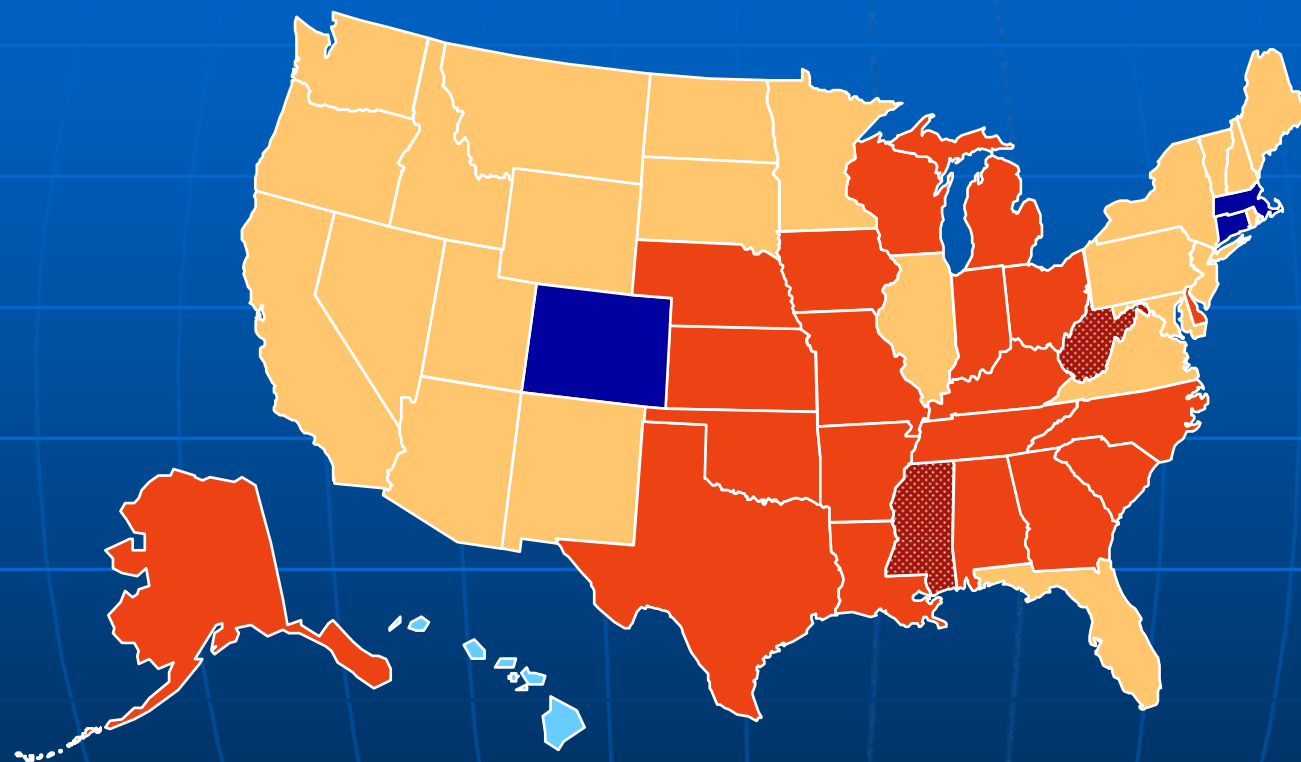
■ No Data ■ <10% ■ 10%–14% ■ 15%–19% ■ 20%–24% ■ 25%–29% ■  $\geq 30\%$



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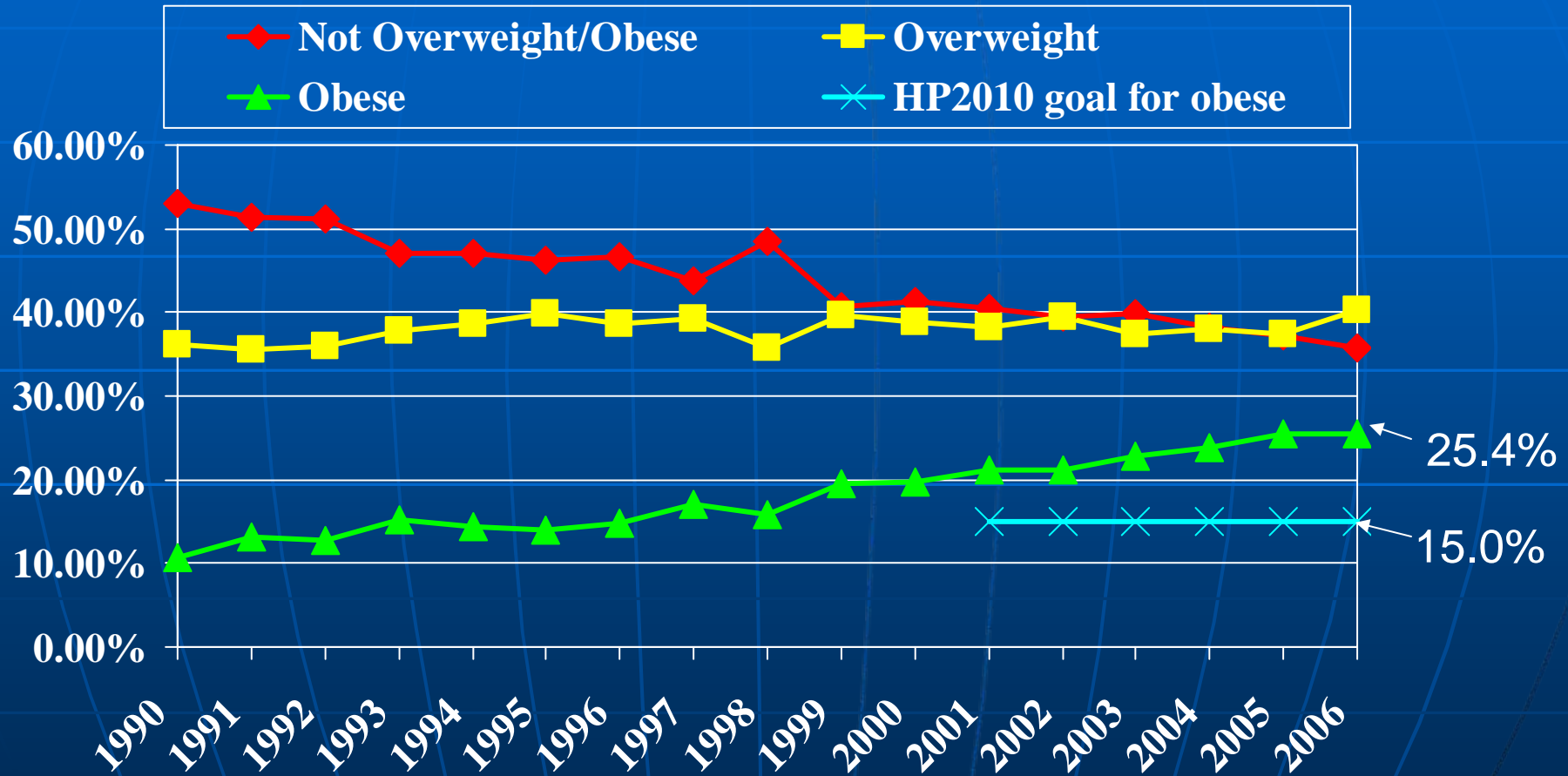


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# South Dakota Adults

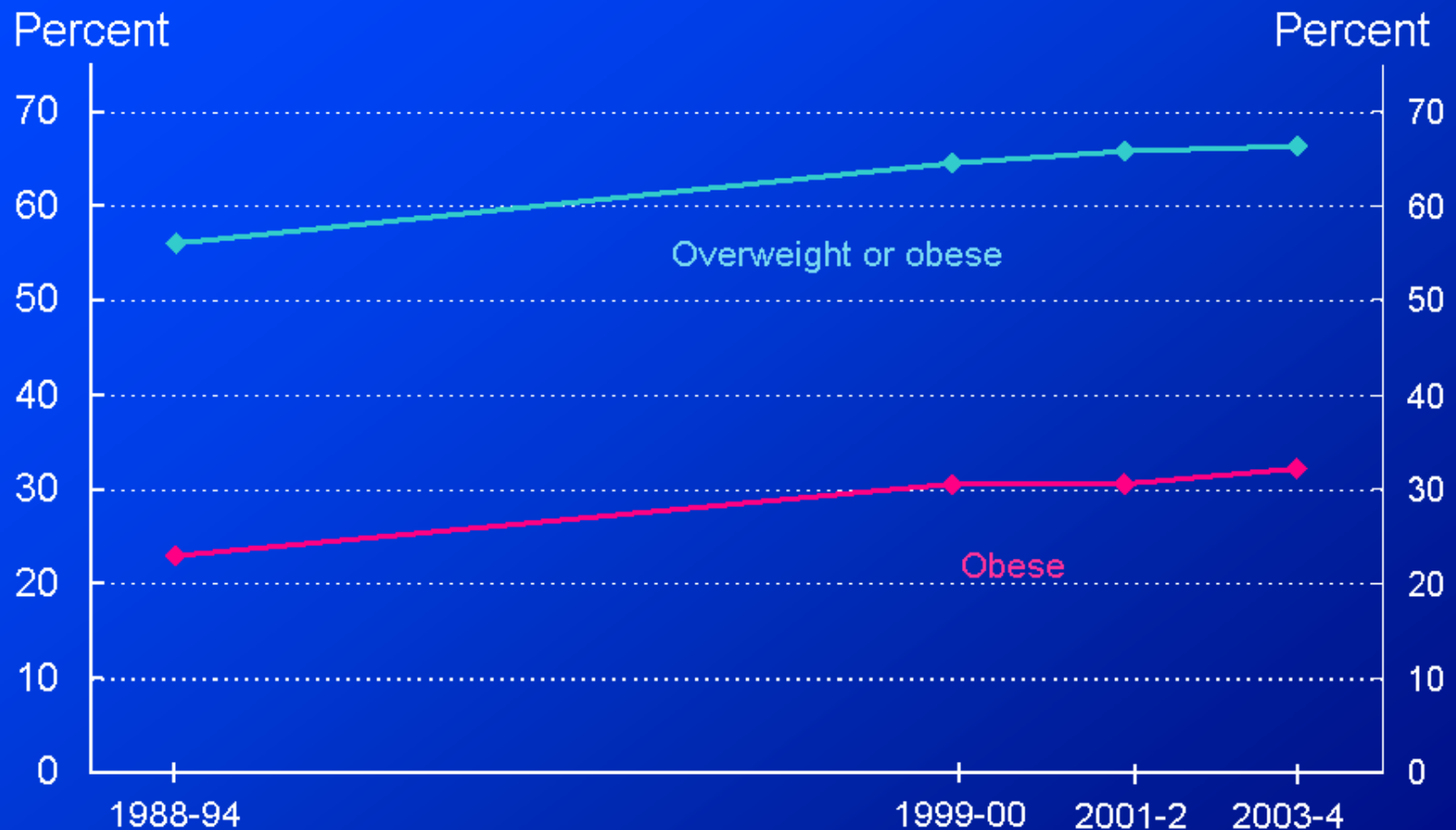
## 1990-2006







# Figure 1. Trends in Adult Overweight and Obesity, ages 20 years and over



Note: Age-adjusted by the direct method to the year 2000 US Bureau of the Census estimates using the age groups 20-39, 40-59 and 60 years and over. Overweight defined as BMI  $\geq 25$ ; Obesity defined as BMI  $\geq 30$ .

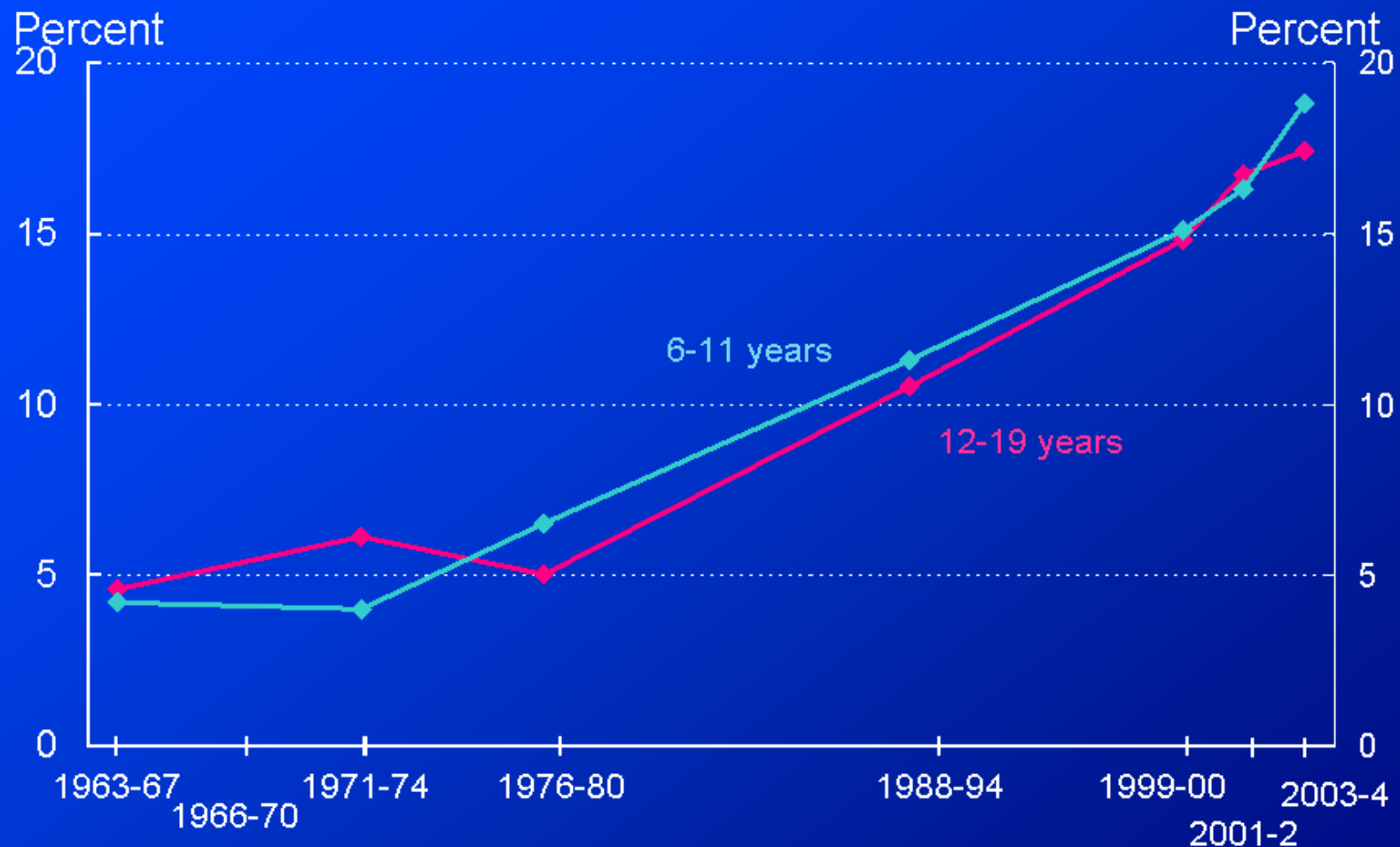


# Pediatric Definitions

- Obese: 95th percentile and above BMI-for-age (*formerly overweight*)
- Overweight: 85th - 94th percentile BMI-for-age (*formerly at risk of overweight*)
- Underweight: 5<sup>th</sup> percentile and below



# Figure 1. Trends in Child and Adolescent Overweight



Note: Overweight is defined as BMI  $\geq$  gender- and weight-specific 95th percentile from the 2000 CDC Growth Charts.  
Source: National Health Examination Surveys II (ages 6-11) and III (ages 12-17), National Health and Nutrition Examination Surveys I, II, III and 1999-2004, NCHS, CDC.



# South Dakota 2-5 Years Olds 95<sup>th</sup> %ile BMI-for-Age





# **South Dakota Department of Health**

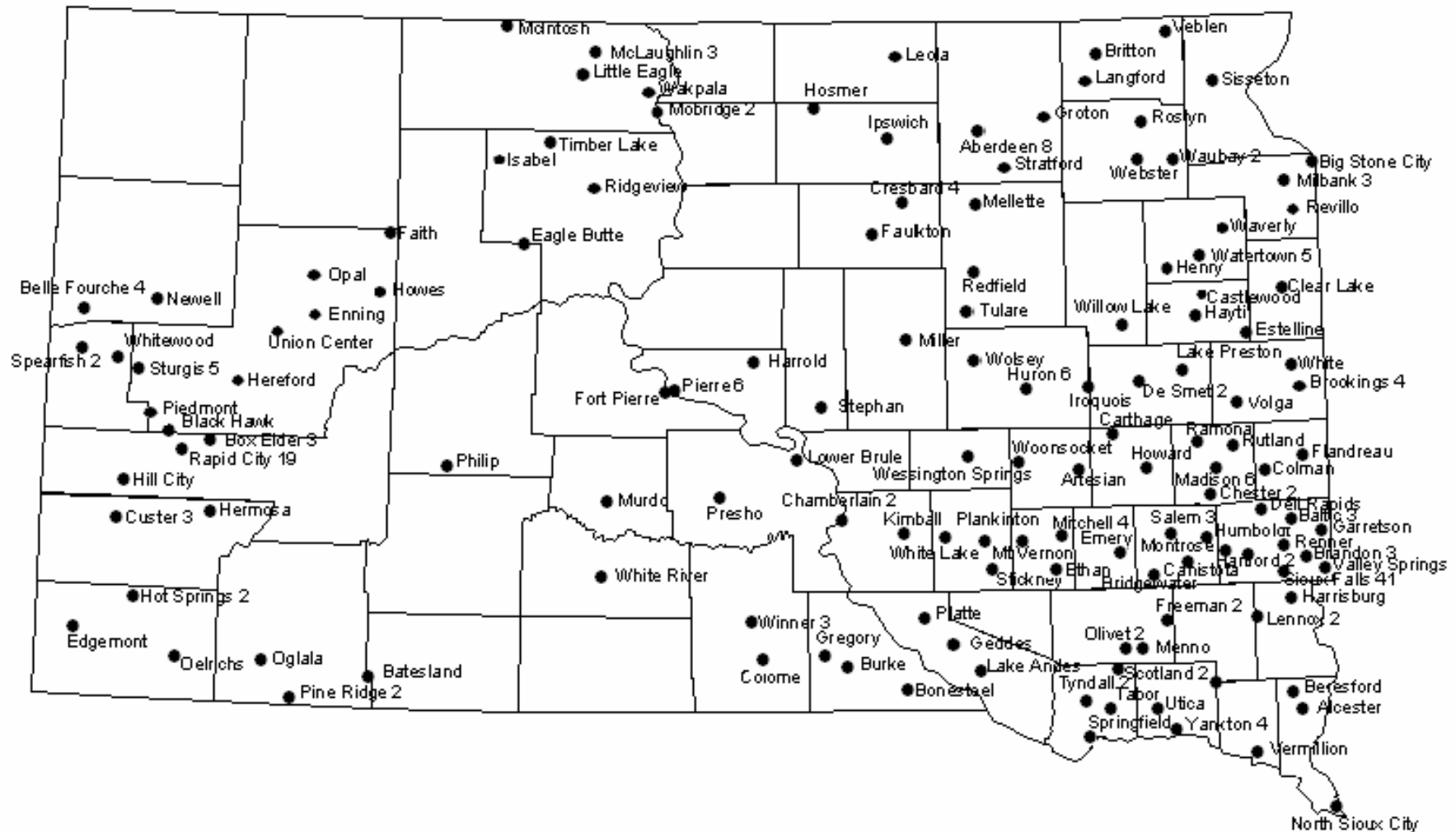


**School Height & Weight Report  
For South Dakota Students  
Started 1998-1999**



# Optional Participation

- 1998-1999: 110 schools; 16,723
- 1999-2000: 95 schools; 15,062
- 2000-2001: 86 schools; 12,493
- 2001-2002: 130 schools; 16,781
- 2002-2003: 145 schools; 20,449
- 2003-2004: 196 schools; 28,699
- 2004-2005: 229 schools; 35,489
- 2005-2006: 276 schools; 46,391
- 2006-2007: 240 schools; 42,075
- 2007-2008: ???



# South Dakota School Height and Weight 2006-2007 School Year

## **Overweight and Obese Body Mass Index By Age**

Age	Number Of Students	Overweight (85-94 %ile)	Obese (95 <sup>th</sup> %ile)	Overweight and Overweight Combined
5-8 years	14,383	15.7%	14.5%	30.2%
9-11 years	12,477	16.9%	17.2%	34.1%
12-14 years	11,047	17.0%	16.9%	33.9%
15-19 years	3,672	17.9%	18.5%	36.4%
Total	41,579	16.6%	16.3%	32.9%

HP2010 Goal Obese 5%





# South Dakota School Height and Weight 2006-2007 School Year

## **Overweight and Obese Body Mass Index By Age, By Race**

Race	Number Of Students	Overweight (85-94 %ile)	Obese (95 <sup>th</sup> %ile)	Overweight and Obese Combined
White	33,765	16.2%	14.5%	30.7%
American Indian	4,584	20.0%	26.8%	46.8%
Total	41,579	16.6%	16.3%	32.9%



# South Dakota School Height and Weight 2006-2007 School Year

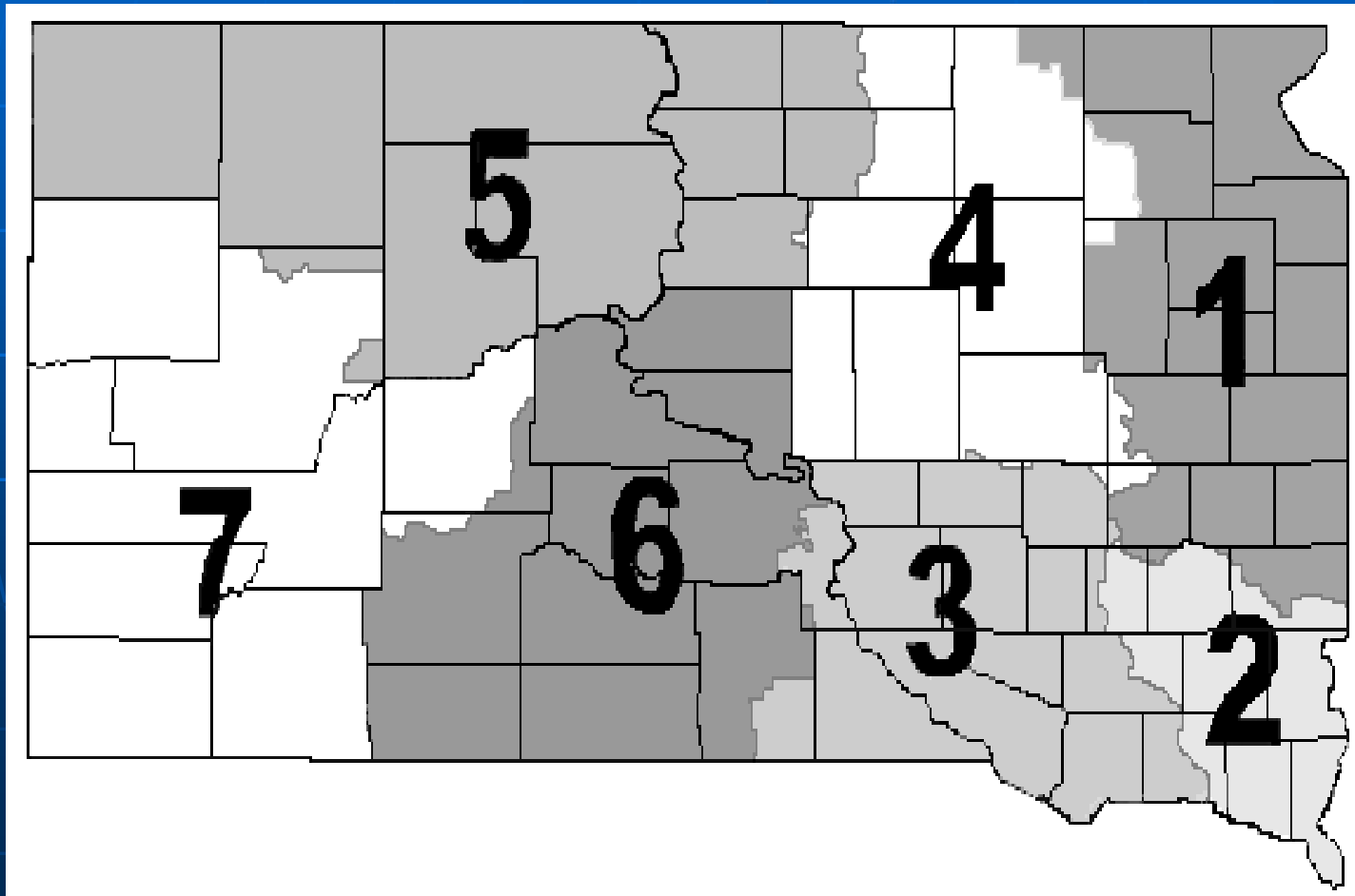
## **Overweight and Obese Body Mass Index By Gender**

Gender	Number Of Students	Overweight (85-94 %ile)	Obese (95 <sup>th</sup> %ile)	Overweight and Obese Combined
Female	20,359	16.9%	14.7%	31.6%
Male	21,220	16.3%	17.8%	34.1%
Total	41,579	16.6%	16.3%	32.9%

HP2010 Goal Obese 5%

# Educational Service Agencies

## Region Map



## School Year 2006-2007 Overweight And Obese Body Mass Index, By Regions

Region	Number of Students	Overweight (85-94 %ile)	Obese (95 <sup>th</sup> %ile)	Overweight And Obese Combined	
1	9,321	17.5%	15.7.3%	33.2%	
2*	9,622	15.8%	13.6%	29.4%	
3**	3,105	17.9%	19.7%	37.6%	
4**	6,343	17.2%	18.4%	35.6%	
5**	1,238	17.7%	22.5%	40.2%	
6**	2,644	17.9%	20.5%	38.4%	
7	9,306	15.2%	15.1%	30.3%	
Total	41,579	16.6%	16.3%	32.9%	

\* Significantly better; \*\* Significantly worse

# SD State Plan for Nutrition and Physical Activity

**South Dakota**  
**State Plan for Nutrition and**  
**Physical Activity**  
To Prevent Obesity and Other Chronic  
Diseases  
**2006**



**HEALTHY SOUTH DAKOTA**  
Live Better. Grow Stronger.

Released April 2006  
2006 Annual Update  
**2007 Annual Update**

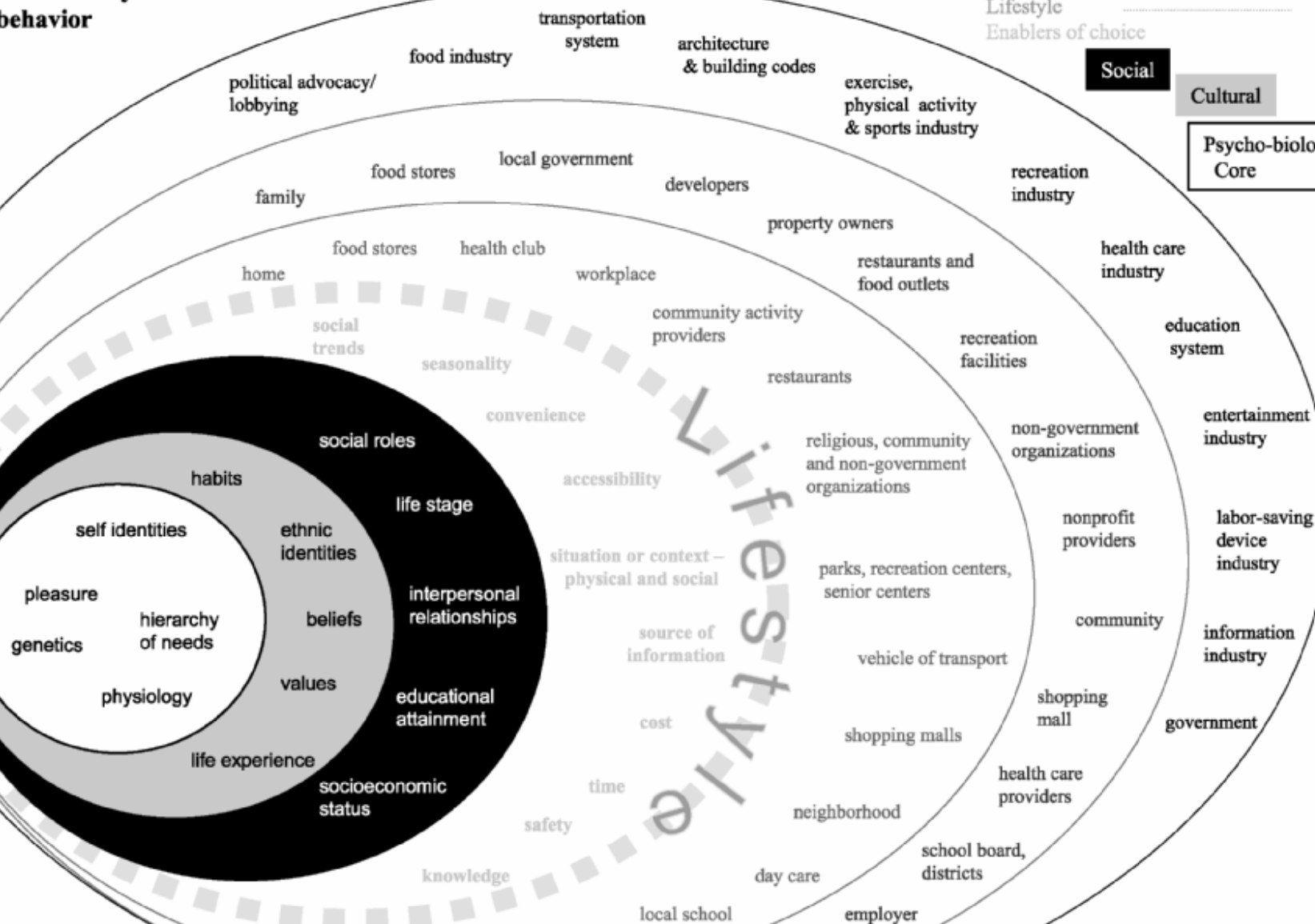
# Framework for determinants of physical activity and eating behavior

Secondary leverage points  
Primary leverage points  
Behavioral settings  
Lifestyle  
Enablers of choice

Social

Cultural

Psycho-biological Core

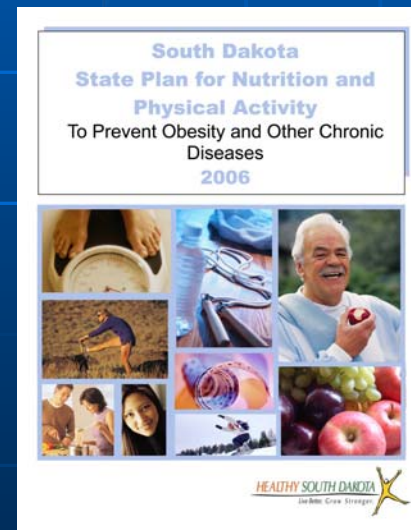


**Socio-Ecological Model**

April 20, 2000

# State Plan Target Populations

- Parents and Caregivers
- Schools and Youth Organizations
- Workplaces
- Communities
- Healthcare





# Science-Based Strategies

1. Inc Physical Activity
2. Dec Television Time
3. Inc Fruits & Veggies
4. Inc Breastfeeding
5. Improved Calorie Intake/Quality of Diet

1. Inc Physical Activity
2. Dec Television Time
3. Inc Fruits & Veggies
4. Inc Breastfeeding
5. Dec Portion Size
6. Dec sweetened beverages

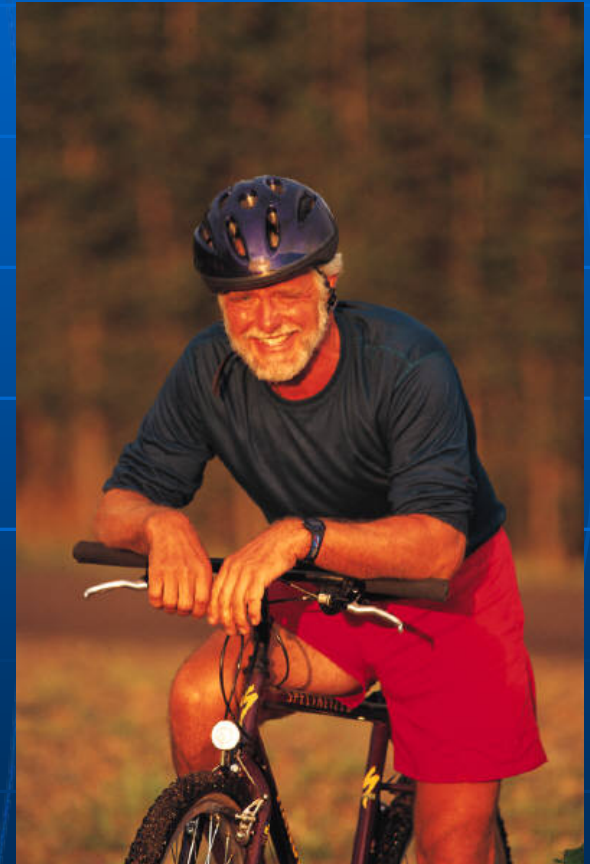




# Physical Activity

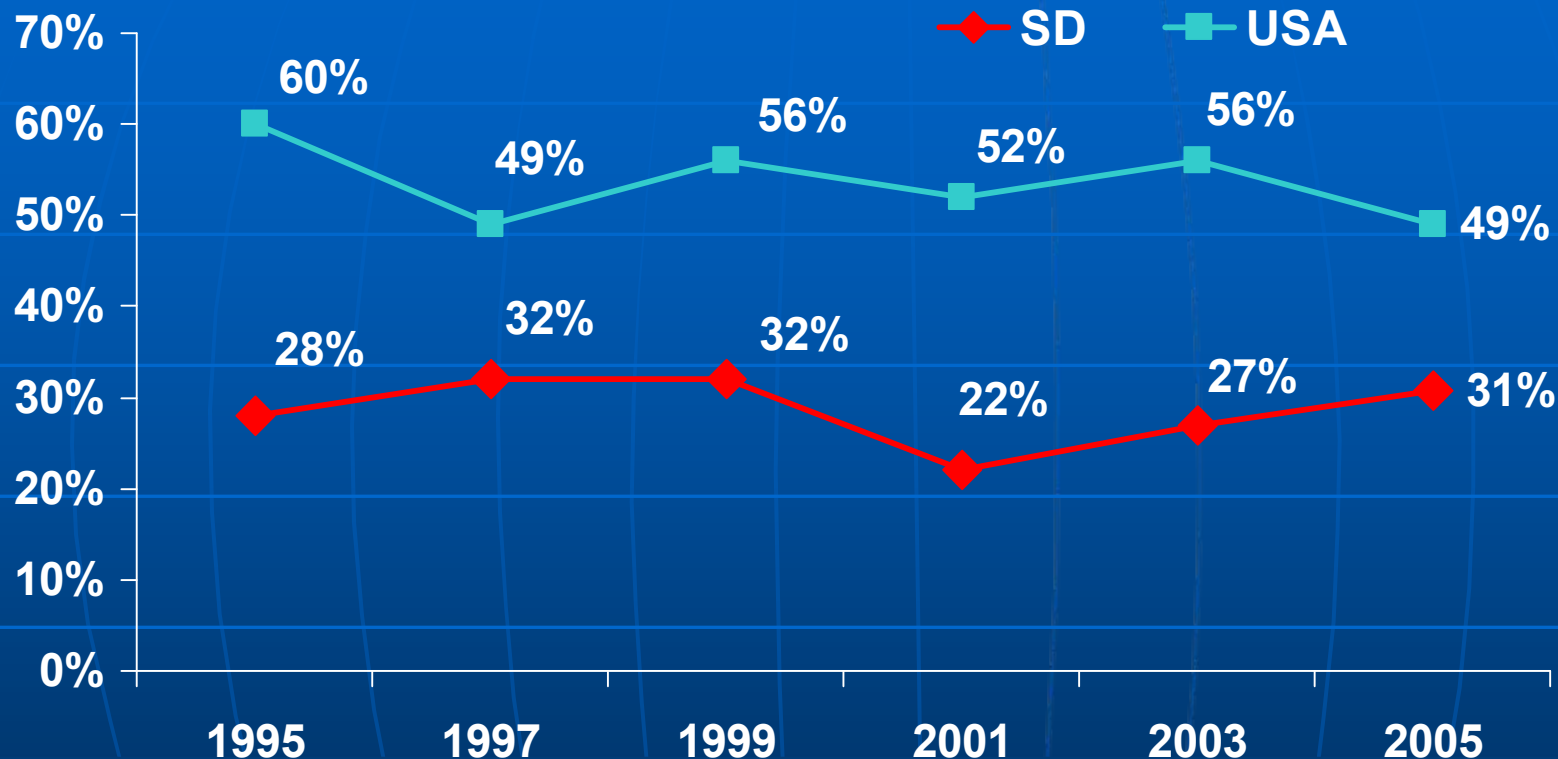
## Recommendations

- 🚲 Adults: 30-60 minutes of moderate physical activity most days of the week or 20 minutes vigorous 3 days per week
- 🚲 Young People: 60 minutes of age appropriate activity everyday



CDC

# Trends in HS students who were enrolled in a physical education (PE) class.\* (Table 57)



South Dakota has had consistently lower PE enrollment rates as compared to national levels. The average difference between the national average and South Dakota is 25 percentage points.

\* On one or more days in an average week when they were in school.

# SD Adults Lacking Physical Activity

- 52% of SD adults do not have a total of 30 minutes or more of moderate activity per day
- 77% of SD adults no vigorous physical activity

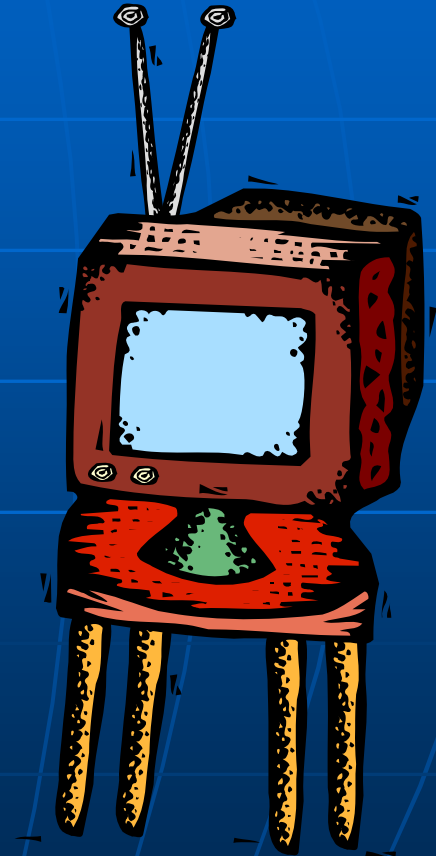
BRFSS 2005



# Inactivity—TV Viewing

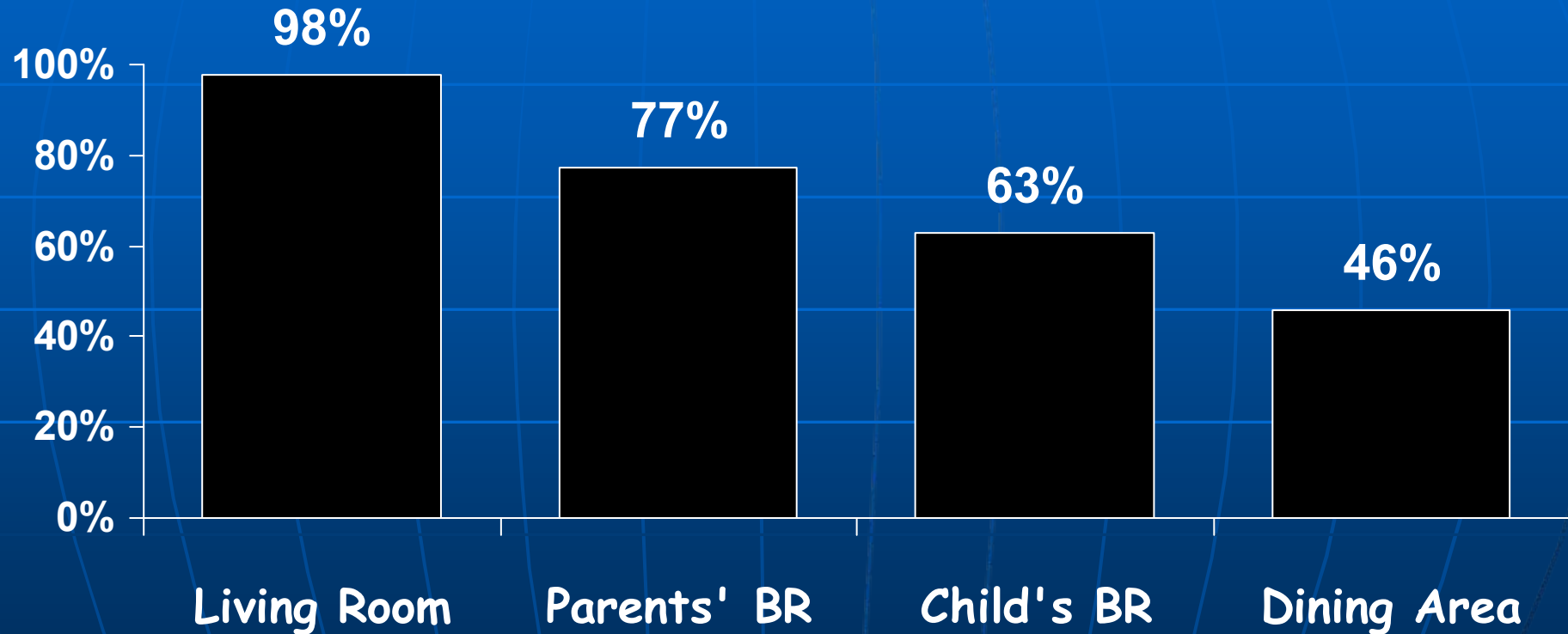
## **HP2010 Objective:**

Increase the proportion of children and adolescents who view television 2 or fewer hours per day to 75%.



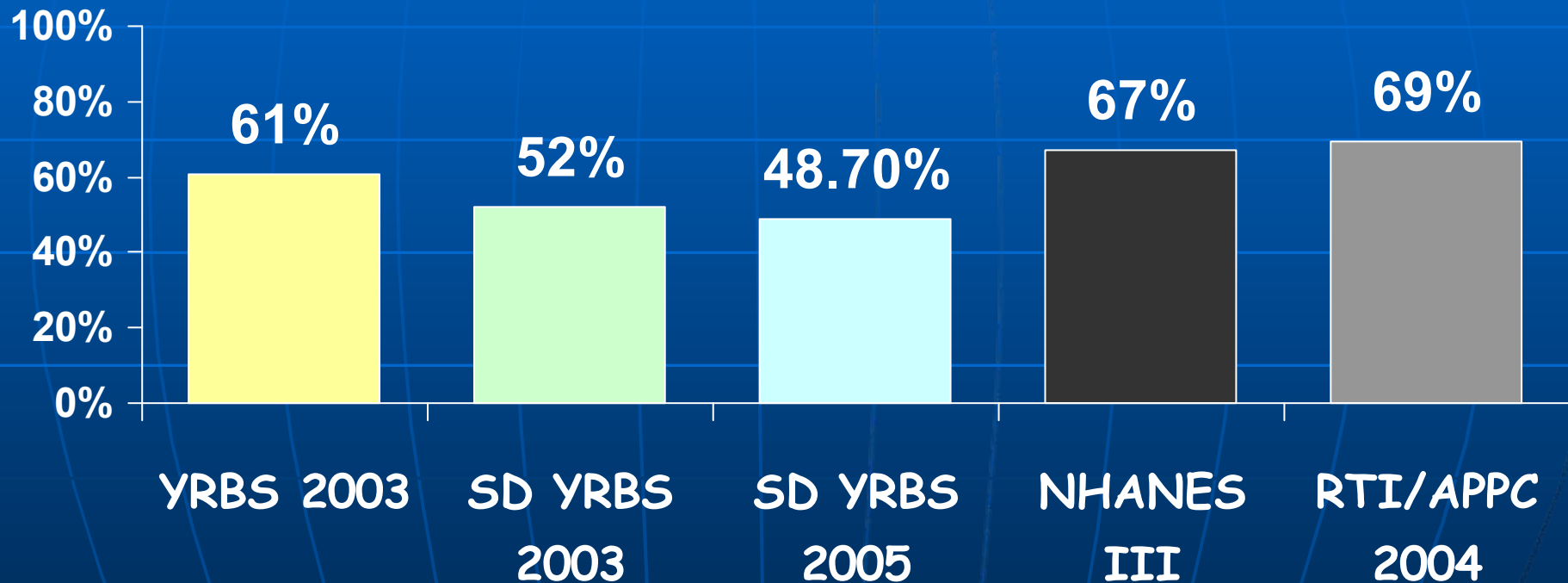


# Television Availability



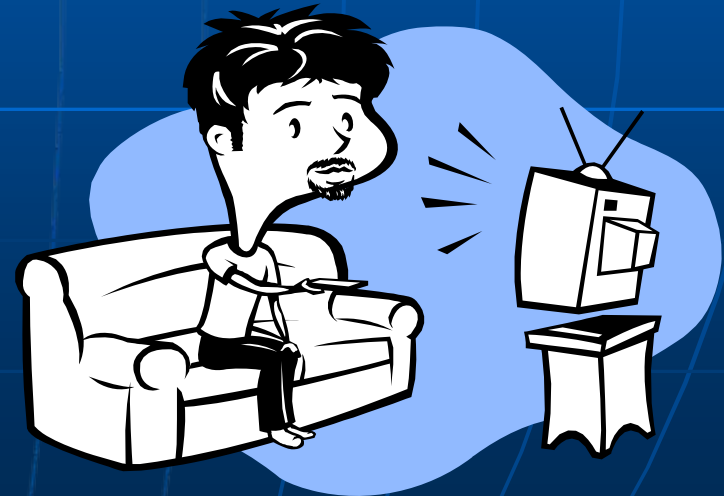
Source: RTI/APPC 2004

# Percent of Children Watching at Least 2 hrs of TV/day



# TV Viewing SD Adults

- SD adults:
  - 61% 2 hours or less in 2004
  - 60% 2 hours or less in 2005
- Strategies
  - No TV bedrooms
  - No TV while eating



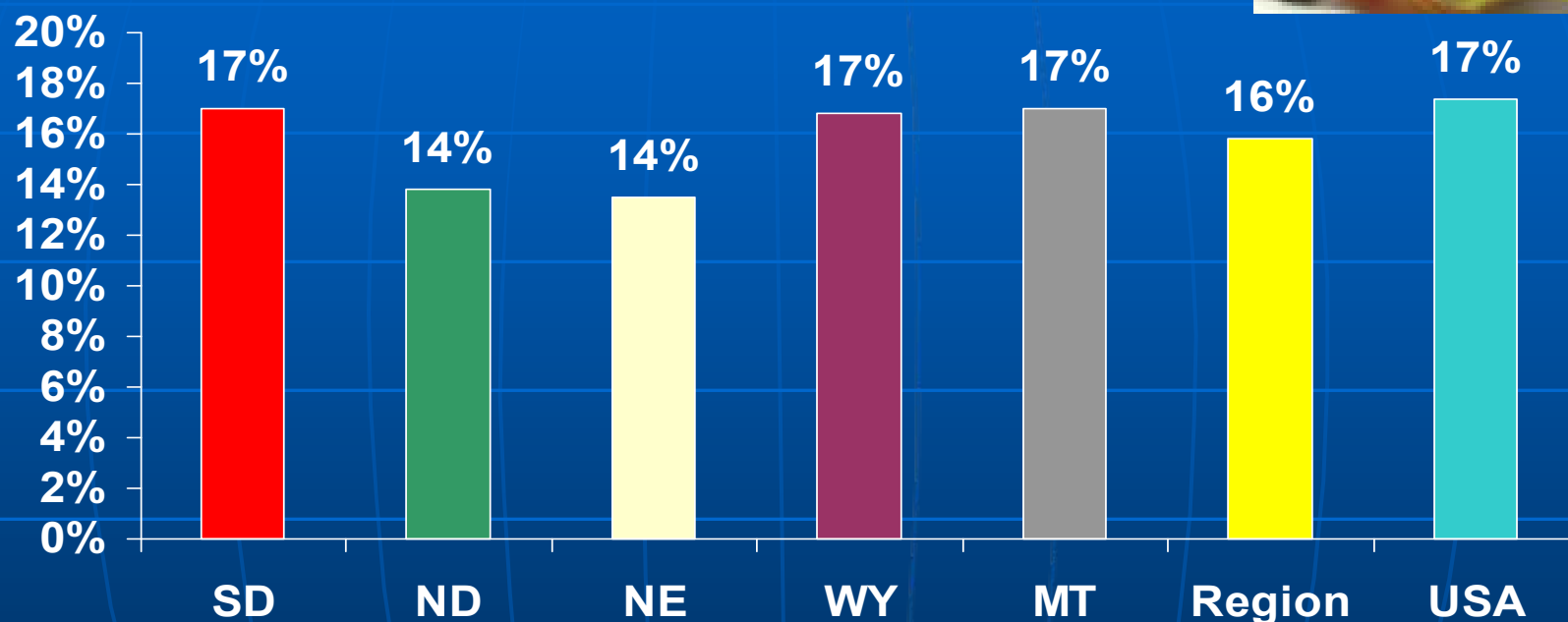
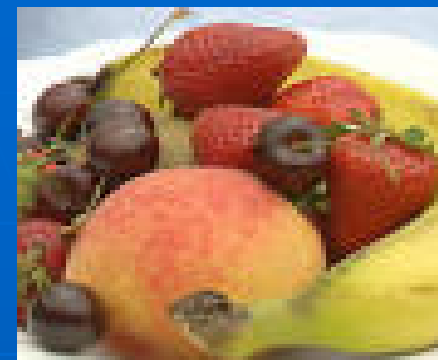
# Fruit & Vegetables

- 5 to 9 and more servings
- Nat'l goal 75% eat 5 or more servings
- Cups versus servings
- "5 A Day" = "Fruits & Veggies—More Matters"





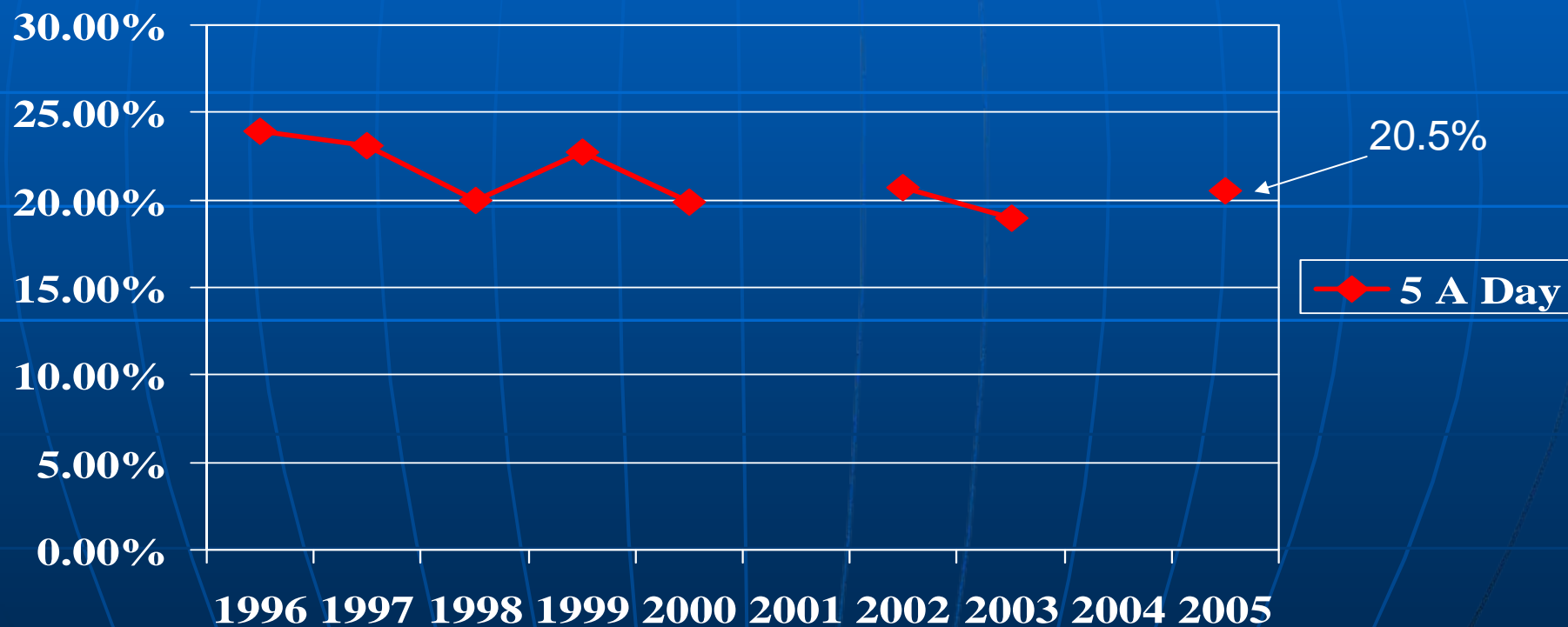
# Percentage of HS students who ate fruits and vegetables $\geq 5$ times per day.\* (Table 51)



South Dakota was even with the national percentage of HS students who ate fruits and vegetables  $\geq 5$  times per day.

\* Had consumed 100% fruit juice, fruit, green salad, potatoes (excluding French fries, fried potatoes, or potato chips), carrots, or other vegetables  $\geq 5$  times per day during the 7 days preceding the survey.

# South Dakota Adults Who Consume At Least Five Servings of Fruits and Vegetables Every Day, 1996-2005



HP2010 goal 75%

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## Fruit & Veggies More Matters Classroom Challenge

### Constructive Classroom Rewards

The Center for Science in the Public Interest suggests rewarding students in the classroom need not involve pizza parties, candy and other foods that undermine children's diets and health and reinforce unhealthy eating habits. Some suggestions for alternative rewards can be found [here](#).

*"We now have the proof we've been looking for: students achieve best when they are physically fit."*

—Delaine Eastin, California State Superintendent of Public Instruction.

### USDA September features of the month

- National Food Safety Education Month
- Food Allergy Awareness Month
- Ethnic Foods Month
- National Chicken Month

[Check it out!](#)

[Health.e.school.org](#) — nutrition, health and fitness



The Healthy South Dakota Program in the Department of Health is offering an opportunity for schools to participate in a fruit and vegetable challenge. In collaboration with Department of Education, Team Nutrition schools can sign up to receive an activity packet for their classroom to use including a dry erase Fruit and Veggie Challenge poster to track their progress. Go to [www.healthysd.gov](http://www.healthysd.gov) and click on "contact us" to request the Fruit and Veggies More Matters materials. Please include a mailing address.

### South Dakota Schools Walks

South Dakota Schools Walk encourages young people to be more active and is open to kids of all ages but students in grades K-6 are eligible to receive incentives for their walking achievements. Teachers, [click here to register your class](#). SD Schools Walk is sponsored by Coordinated School Health in the Departments of Health and Education.

### Height Weight Data for 2007-2008 School Year

Letters are being sent to schools regarding collection of South Dakota height and weight data for 2007-2008 school year. Data will be accepted throughout the year but must be submitted by June 16th for inclusion in this year's analysis. Applications for scales and measuring boards for schools who wish to participate in data collection are also being solicited. Applications are due by

*"Children today have a shorter life expectancy than their parents for the first time in 100 years."*

—Dr. William J. Klish, professor of pediatrics, Baylor College of Medicine.

### Nutrition Decisions

Check out this interactive website designed to engage adolescents in activities that teach the importance of making healthful eating decisions and promoting physical activity.

### Healthy Nutrition Environment

*"This issue is not an easy one. It needs creative ideas, strong wills, and most dedicated efforts to find ways to make school environments supportive of good health and nutrition."*

—Former USDA Secretary Dan Glickman

*"Efforts to improve*

**National Association School Boards of Education** provides a variety of resources for school administration related to policy development.



# Healthy South Dakota website

**[www.healthysd.gov](http://www.healthysd.gov)**

**HEALTHY SOUTH DAKOTA**

Live Better. Grow Stronger.

